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INTERNATIONAL PRELIMINARY EXAMINATION REPORT



(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 03KP-PCT105	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/KR2003/000809	International filing date (day/month/year) 21 APRIL 2003 (21.04.2003)	Priority date (day/month/year) 26 AUGUST 2002 (26.08.2002)
International Patent Classification (IPC) or national classification and IPC IPC7 A23L 1/10		
Applicant BULRO CORP. et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.
- ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
- These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 10 OCTOBER 2003 (10.10.2003)	Date of completion of this report 16 DECEMBER 2004 (16.12.2004)
Name and mailing address of the IPEA/KR  Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer CHUNG, Kee Hyun Telephone No. 82-42-481-8133 

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/KR2003/000809

I. Basis of the report

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed
- ☒ the description:
 pages 1-13 , as originally filed
 pages _____ , filed with the demand
 pages _____ , filed with the letter of _____
- ☒ the claims:
 pages 14 , as originally filed
 pages _____ , as amended (together with any statement) under Article 19
 pages _____ , filed with the demand
 pages _____ , filed with the letter of _____
- ☐ the drawings:
 pages _____ , as originally filed
 pages _____ , filed with the demand
 pages _____ , filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____ , as originally filed
 pages _____ , filed with the demand
 pages _____ , filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language English which is

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☒ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages None
- ☒ the claims, Nos. None
- ☒ the drawings, sheets None

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed," and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item I and annexed to this report.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-4	YES
	Claims	None	NO
Inventive step (IS)	Claims	2	YES
	Claims	1, 3, 4	NO
Industrial applicability (IA)	Claims	1-4	YES
	Claims	None	NO

2. Citations and explanations (Rule 70.7)

Reference is made to the following document:

D1:KR 1996-0004999 B

D1 relates to a method for instant dried alpha-rice, comprising the steps of : (a) washing milled rice with water to remove contaminants adhered to the shell of the milled rice; (b) soaking the washed rice in water for 2-4hours, followed by dehydrating in air for 0.5-2hours; (c) charging the dehydrated rice into a cooker while maintaining the water temperature at 98-100°C, followed by hot water treating 10-15minutes to prepare boiled rice; (d) quickly cooling the boiled rice using a shower; and (e) placing the washed boiled rice in a vacuum drying chamber while maintaining the internal temperature at 80-90°C, and vacuum drying at an internal pressure of 1 torr or lower to maintain water content of the boiled rice at 1-8wt%.

Claim 1 relates to a method for preparing instant dried alpha-rice, comprising the steps of: (a) washing milled rice with water in a washer to remove impurities adhered to the shell of the milled rice; (b) soaking the washed rice in water for 3-120 minutes to evenly absorb water, followed by dehydrating in air for 3-30 minutes; (c) charging the dehydrated rice into a continuous rice cooker while maintaining the water temperature at 80-98°C, followed by hot water treating for 8-20 minutes to prepare boiled rice; (d) quickly cooling the boiled rice using a shower, followed by washing in a cooling tank; and (e) placing the washed boiled rice in a vacuum drying chamber while maintaining the internal temperature at 60-98°C, and vacuum drying at an internal pressure of 1 torr or lower to maintain water content of the boiled rice at 1-5% or less.

1. Novelty

Claim 1 is the same as D1 in the method for preparing instant dried alpha-rice comprising the steps of washing, soaking and dehydrating, boiling, cooling, and vacuum drying. However, they are different in the treating condition in each step and the step of cooling comprising 2 stages.

Thus, claims 1-4 are novel under PCT Article 33(2).

(Continued on Supplemental Sheet.)

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of:

Box V.

2. Inventive Step

1) Claim 1 relates to a method for preparing instant dried alpha-rice comprising the steps of washing, soaking and dehydrating, boiling, cooling, and vacuum drying, in which the treating conditions such as time for soaking(2 hours) and time for dehydrating(30 minutes) in step (b), a water temperature (98 °C) and time for heating(10-15 minutes) in step (c), a temperature(80-90 °C) and inner pressure(at most 1 torr) of a vacuum drying chamber and the amount of water(1-5%) in step (e) are partly same as those in D1. In addition, the technical feature of the cooling step comprising 2 stages can be easily considered by a person skilled in the art if necessary, and there is no remarkable effect therefrom.

2) Claim 3 defines a water temperature and time for heating in step (b), which come within the same scopes of a water temperature and time for heating of D1. Claim 4 defines the alpha-starch content of alpha-rice manufactured by the method of claim 1, but it is regarded as a mere result from the method of claim 1 and is thus not considered to generate any specific effect.

Accordingly, claims 1,3,4, are not inventive under PCT Article 33(3).

3) Claim 2 defines the time for soaking as 10-60 min. and the time for dehydrating as 3-20 min. in step (b), which is different from D1 and shows enhanced effect therefrom.

Thus, claim 2 is inventive under PCT Article 33(3).

3. Industrial Applicability

Claims 1-3 are industrially applicable under PCT Article 33(4).